to the measurement circuit. The processor is operative to calculate a solution to at least one empirically derived mathematical function by using the at least one measured characteristic as an independent variable in the at least one empirically derived mathematical function. The solution is an estimate of likely user perception of the quality of the telephonic voice connection.

Claim 18 is directed to a method for evaluating quality in a telephonic voice connection in a telecommunications network. The method includes establishing a telephonic voice connection. At least one characteristic of the telephonic voice connection is measured. A solution to at least one empirically derived mathematical function is calculated by using the at least one measured characteristic as an independent variable in the at least tone empirically derived mathematical function. The solution is an estimate of likely user perception of the quality of the telephonic voice connection.

Claim 29 is directed to a programmable device for evaluating quality in a telephonic voice connection in a telecommunications network. The device includes a memory operative to store at least one empirically derived mathematical function having at least one independent variable. A processor is coupled to the memory. The processor is operative to calculate a solution to the at least one empirically derived mathematical function by using at least one measured characteristic as the independent variable. The solution is an estimate of likely user perception of the quality of the telephonic voice connection. An interface control circuit is coupled to the memory. The interface control circuit is adapted to receive a revised at least one empirically derived mathematical function from an external device, and store the revised at least one empirically derived mathematical function in the memory.

Claim 37 is directed to a method for fabricating a device for evaluating quality in a telephonic voice connection in a telecommunications network. The method includes empirically acquiring user perception data by having at least one test subject listen to a plurality of test messages, and rate the quality of each test message in accordance with at least one user perceived impairment characteristic. The user perception data is modeled as a least one mathematical function. The at least one mathematical function is graphically represented by a two dimensional curve having a shape. The shape of the curve is determined by a set of constants employed in the at least one mathematical function. Values are chosen for the set of constants to thereby fit the two-dimensional curve to the user perception data to thereby generate at least one empirically derived mathematical function. The at least one empirically

derived mathematical function is converted into a set of computer executable instructions. The device is programmed with the set of computer executable instructions.

Claim 49 is directed to a computer readable medium having computer executable instructions for performing a method. The method includes establishing a telephonic voice connection. At least one characteristic of the telephonic voice connection is measured. A solution is calculated for the at least one empirically derived mathematical function by using at least one measured characteristic as an independent variable of the at least one empirically derived mathematical function.

Claim 61 is directed to a programmable device for evaluating quality in a telephonic voice connection in a telecommunications network. The device includes a memory operative to store at least one empirically derived mathematical function having at least one independent variable. An interface control circuit coupled to the memory. The interface control circuit is adapted to receive revised empirically derived data from an external device, and store the revised empirically derived data in the memory. A processor is coupled to the memory. The processor is programmed to calculate a revised empirically derived mathematical function using the revised empirically derived data. The processor calculates a solution to the revised at least one empirically derived mathematical function by using at least one measured characteristic as the independent variable. The solution is an estimate of likely user perception of the quality of the telephonic voice connection.

Hollier discloses a system for testing telecommunications equipment. The system includes connecting a first quality analysis device and a second quality analysis device to the telecommunications network under test. The first device and second device converse using artificial speech signals. The devices perform measurements on the sounds received from the other device. The device processes the received speech using a conversational processor and a perceptual analysis unit (See Figure 2, and column 9, lines 10-23, and lines 38-49). The perceptual analysis unit compares received speech with expected speech to analyze the quality of the received speech. The processor is coupled to the analysis unit and uses analysis unit inputs to control conversational intent. (See column 9, lines 17-22). Neither the perceptual analysis unit nor the conversational processor calculate a solution to at least one empirically derived mathematical function to provide an estimate of likely user perception of the quality of the telephonic voice connection.

Malvar discloses a codec that is used to encode and decode digital signals for use in CDs, Internet audio, DVDs, and telephony. During transmission, the system includes an A/D

converter that converts an analog audio signal into a digital representation of the audio signal, and a codec, which encodes and compresses the digital signal. The system also includes a decoder and D/A converter that performs the reverse process during reception of an encoded signal. The coder includes a MLT transform processor, a weighting processor, a uniform quantizer, a spectrum processor, and entropy encoder, and a multiplexer (See column 3, lines 21-35). The MLT transform processor receives an original signal and produces transform coefficients (See column 9, line 13 - column 13, line 22). The quantizer and the weighting processor employ spectral weighting and partial whitening in order to mask quantization noise (See column 13, line 23 - column 15, line 54). The entropy encoder uses a probability model to measure the amount of information contained in a message and to perform variable-to-fixed length block encoding. The entropy encoder includes a run-length encoder and a Tunstall encoder. The run-length encoder reduces the symbol rate for sequences of zeroes by mapping variable length strings into source code words of a given length using a statistical mapping variable length strings into source code words of a given length using a statistical model. The Tunstall encoder compresses the source code words (See column 15, line 55 to column 18, line 49). The statistical modeling used to perform entropy encoding uses a modified Laplacian-exponential probability density function (PDF) for the run-length encoding (See 18, line 50 - column 19, line 62). The PDF model is controlled by the parameter A (See column 19, lines 38-39). The parameter A is the maximum value of a fixed block (See column 18, lines 23-49).

Di Pietro is directed to a method and apparatus for automatically and reproducibly rating the transmission quality of a speech transmission system such as a wireless system or a public switched telephone network. See column 1, line 65 – column 2, line 15, and column 4, lines 48-52. The apparatus generates a test signal containing a predetermined voice signal. See column 5, lines 16-55. The test signal is transmitted from a system transmitter to a system receiver. Characteristic values are extracted from the received signal. In this case, the characteristics refer to coefficients that determine the envelope of the logarithmic spectral power of the received signal. See column 7, lines 5 – 34. A differential pattern corresponding to the difference between the characteristic values and the predetermined reference values is derived. See column 5, lines 34 – 47. The differential pattern is used as an input to a neural network. See column 5, lines 48-51. The neural network is trained to classify such patterns according to a predetermined number of transmission quality classes, such as "good," "medium" and "bad." See column 5, lines 55 – 63.

Chen is directed to a method and apparatus for detecting zero rate frames in a communications system, such as in a wireless system that employs code division multiple access (CDMA). In CDMA systems, transmissions occur within specified time intervals referred to as frames. The duration of a frame may be on the order of 20msec. The amount of data transmitted in a frame may be variable. A zero rate frame is a frame that includes no data transmission. CDMA systems often reduce transmitted power during the zero rate frame for efficiency reasons, e.g., reduce transmitted power when no data is being transmitted. Thus, it is critical that the receiver be able to detect the incidence of zero rate frames because it must be able to differentiate between an erased or bad frame (e.g., an error condition) and a zero rate frame, which is a normal network condition. Chen solves this problem. In detecting zero rate frames, the receiver demodulates the received signal to obtain demodulated symbols. The demodulated symbols are partitioned into frames. A quality metric is derived from each frame. The quality metric may be the energy of the received frame, the distance between the received frame and a predetermined codeword, or some other metric. Column 2, lines 2-59. Typically the quality metric is compared to a threshold. See column 9, lines 28-44. The selection of the threshold is shown in Figure 5 and the related text. Gaussian PDF 510 represents a zero rate frame which includes only noise (e.g., no signal is present in the communications channel). As those of ordinary skill in the art will recognize, the Gaussian distribution is a well known function that is defined by its mean and standard deviation (See column 12, lines 3-10). The mean and standard deviation of PDF 510 is estimated using the metrics of known zero rate frames. Gaussian PDF 512 represents a frame that includes both signal and noise. The mean and standard deviation of PDF 512 is estimated using the metrics of known good and bad frames. See column 11, lines 54-57. In this case, the computed energy of the received frame determines the distance between PDF 510 and PDF 512. See column 11, lines 30-32.

According to the **MPEP 2143**, three basic criteria must be met to establish a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the

prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

A. The prior art references do not reach or suggest all the claim limitations.

Claim 1:

Neither Hollier, Malvar, Di Pietro, nor Chen, whether taken alone, or in combination, teach, suggest or disclose a processor operative calculate a solution to at least one empirically derived mathematical function by using the at least one measured characteristic as an independent variable in the at least one empirically derived mathematically function, whereby the solution is an estimate of likely user perception of the quality of the telephonic voice connection, as recited in claim 1.

Hollier:

The Examiner states (in both Office Actions) that Hollier teaches a system and method for evaluating quality in a telephonic voice connection. He also states that Hollier's system includes a measuring circuit and a processor, as recited in claim 1. In making his rejection, the Examiner relies on the Title, Abstract, col. 1, line 8 - column 4, line 67, column 5, line 12 - column 6, line 67, and column 7, line 25 - column 16, line 34. As pointed out in the applicant's last response, the Examiner does not point out where in these massive blocks of text the individual elements can be found.

In the Background of the Invention (Columns 1-2), Hollier describes the development of various techniques used to characterize the quality of a network. Hollier states that there are essentially two ways to determine network quality. First, an objective analysis may be employed. Examples of objective analyses include signal-to-noise measurements. Hollier dismisses the use of objective methods, because they neglect user perception, or because they use signals (such as sine waves) not normally transmitted over the network (See column 1, lines 37-50, and column 2, lines 7-15). The second method involves subjective analyses.

Hollier describes a mean opinion score (MOS) method, a conversational assessment method, an artificially generated speech method. However, the MOS Method is a static analysis that uses post-processing techniques. As explained by Hollier, the MOS is derived by subjects rating the quality using a five point scale ranging from "excellent" to "bad". Thus, the MOS as described in Hollier does not use an empirically derived mathematical function, as recited in Claim 1. See column 1, lines 17-29, and column 1, lines 50 - column 2, line 29.

Hollier's conversational assessment method, which varies vocal level until "equilibrium is achieved, also does not solve an empirically derived mathematical function to determine quality (See column 2, lines 30-40). The artificially generated speech method uses precisely defined and easily reproducible phonemes. Received artificial speech is compared with stored speech (See column 2, lines 41-48). This method also does not solve an empirically derived mathematical function to determine quality. Thus, contrary to the Examiner's assertions, the Background of Hollier's invention does not teach, suggest, or disclose the processor, as recited in claim 1.

Hollier also discloses a system for testing telecommunications equipment that includes connecting a first quality analysis device and a second quality analysis device to a telecommunications network. The first device and second device converse using speech signals. The receiving device include a conversational processor and a perceptual analysis unit programmed to react to the received speech (See Figure 2, and Column 9, lines 10-23, and lines 38-49). The perceptual analysis unit compares received speech with expected speech to analyze the quality of the received speech (Column 9, lines 38-41). In response, the processor updates and controls the conversational states to adapt conversational intent and recovery behavior to the received speech (Column 9, lines 41-44). A description of a conversational assessment of a two-device system is shown in Figures 3-6, and described at column 9, line 53-column 12, line 54. Thus, Hollier does not teach a processor operative calculate a solution to at least one empirically derived mathematical function by using the at least one measured characteristic as an independent variable in the at least one empirically derived mathematically function, whereby the solution is an estimate of likely user perception of the quality of the telephonic voice connection, as recited in claim 1.

Malvar:

The Examiner states that Malvar provides the elements missing from Hollier. In particular, the Examiner states that Malvar teaches a system that uses "real-time parametric modeling for a probability distribution function that approximates the user perception of the quality of a voice connection." First, the Applicant respectfully disagrees with the Examiner's characterization of the Malvar reference. Second, even if the Examiner's characterizations are correct, they are not applicable to the claims as recited.

Malvar is not directed to a system for evaluating quality in a telecommunications network. Malvar discloses a codec that performs entropy encoding (See Title, Abstract,

column 2, lines 15-18, column 3, line 14-column 4, line 11). Thus, any processing performed by the codec is not directed to evaluating system quality, it is instead, directed to encoding and decoding digital signals (See column 3, lines 14-20). Thus, Malvar is not applicable to network quality evaluation.

Second, Malvar does not employ a probability distribution function that approximates the user perception of the quality of a voice connection as the Examiner asserts. Malvar employs a modified Laplacian-exponential probability density function (PDF) for a run-length encoding step within the overall entropy encoding process (See 18, line 50-column 19, line 62). The Laplacian-exponential PDF model is controlled by the parameter A (See column 19, line 38-39), which is defined as the maximum value of a fixed block (See column 18, lines 23-49). Thus, the parameter A is not a measured characteristic of a telephonic voice connection. Furthermore, the Laplacian-exponential PDF model is not employed to approximate user perception of the quality of a voice connection.

Di Pietro:

The Examiner states that Di Pietro teaches a method and apparatus for rating the transmission quality of a speech system, wherein differential data is fed to a neural network. The applicant agrees with the Examiner's assessment of the reference. However, the applicant respectfully points out that Di Pietro is irrelevant because it is not directed to the claim as recited. In other words, Di Pietro does not teach, suggest, or disclose a processor operative calculate a solution to at least one empirically derived mathematical function by using the at least one measured characteristic as an independent variable in the at least one empirically derived mathematically function, whereby the solution is an estimate of likely user perception of the quality of the telephonic voice connection, as recited in claim 1.

Chen:

The Examiner points out that Chen teaches a method and apparatus for detecting zero rate frames by comparing a computer metric to a threshold value. The threshold value is determined by plotting two PDFs. Again, the applicant agrees with the Examiner's characterization of Chen. However, the Examiner's analysis is, again, beside the point. As pointed out above, the PDFs used by Chen are Gaussian distributions. A Gaussian distribution is a well known function developed by the mathematician C.F. Gauss as a tool used for modeling physical phenomena. See for example, *Haykin, Simon S., Communications*

Systems, 1983, by John Wiley & Son, Inc., p. 271. Thus, a Gaussian distribution is not an empirically derived PDF. Further, the computation performed by Chen involves comparing a quality metric against a selected threshold. Therefore, Chen does not calculate a solution to at least one empirically derived mathematical function by using the at least one measured characteristic as an independent variable.

Thus, neither Hollier, Malvar, Di Pietro nor Chen, whether taken alone, or in combination, teach, suggest or disclose a processor operative calculate a solution to at least one empirically derived mathematical function by using the at least one measured characteristic as an independent variable in the at least one empirically derived mathematically function, whereby the solution is an estimate of likely user perception of the quality of the telephonic voice connection, as recited in claim 1.

Dependent Claims:

The claims depending from claim 1 are also allowable in their own right. For example, claim 2 recites that the least one empirically derived mathematical function is a cumulative probability distribution function. Neither Hollier, Malvar, Di Pietro, nor Chen teach a cumulative probability distribution function. As discussed above, Malvar uses a modified Laplacian-exponential probability density function (PDF). Chen employs a Gaussian PDF. Those of ordinary skill in the art will recognize that a probability density function is not the same as a cumulative probability distribution function (CDF). Mathematically speaking, a PDF is the derivative of a CDF. See *Haykin, Simon S., Communications Systems,* 1983, by John Wiley & Son, Inc., p. 234. With respect to claims 3-9, none of the equations recited therein can be found in either Hollier or Malvar.

Claims 2-17 are also allowable by virtue of their dependency on claim 1. For the above stated reasons, the Applicant respectfully asserts that claims 1-17 are patentable under 35 U.S.C. § 103 (a).

Claim 18:

The Applicant notes that the Examiner provides no independent analysis for claim 18. However, claim 18 is allowable for the same reasons claim 1 is allowable. Neither Hollier, Malvar, Di Pietro, nor Chen teach, disclose or suggest the step of calculating a solution to at least one empirically derived mathematical function by using the at least one measured characteristics as an independent variable in the at least one empirically derived mathematical

function, whereby the solution is an estimate of likely user perception of the quality of the telephonic voice connection, as recited in claim 18. See the analysis provided above with respect to claim 1.

The claims depending from claim 18 are also allowable in their own right. For example, the subject matter of claims 19-22 cannot be found in either cited reference. Neither Hollier, Malvar, Di Pietro nor Chen teach, disclose, or suggest an empirically derived first function, an empirically derived second function, or an empirically derived third function as recited therein.

Claims 19-28 are also allowable by virtue of their dependency on claim 18. For the above stated reasons, the Applicant respectfully asserts that claims 18-28 are patentable under 35 U.S.C. § 103 (a).

Claim 29:

The Examiner also does not provide an independent analysis of claim 29. Claim 29 is directed to a programmable device for evaluating quality in a telephonic voice connection in a telecommunications network. The Examiner does not point out where either Hollier, Malvar, Di Pietro or Chen disclose a programmable device as recited in claim 29.

Claim 29 also includes a memory operative to store at least one empirically derived mathematical function having at least one independent variable. The Examiner does not point out where either Hollier, Malvar, Di Pietro or Chen disclose the memory element recited in claim 29.

Claim 29 also includes a processor coupled to the memory. The processor is operative to calculate a solution to the at least one empirically derived mathematical function by using at least one measured characteristic as the independent variable. The solution is an estimate of likely user perception of the quality of the telephonic voice connection. In the analysis of claim 1, the Applicant has shown that neither Hollier, Malvar, Di Pietro nor Chen include this element.

Claim 29 also includes an interface control circuit coupled to the memory. The interface control circuit is adapted to receive a revised empirically derived mathematical function from an external device, and store the revised empirically derived mathematical function in the memory. Neither Hollier, Malvar, Di Pietro nor Chen disclose, teach, or suggest this element. The Examiner has failed to point out where this element can be found in any of the cited references.

The claims depending from claim 20 are also allowable in their own right. For example, the subject matter of claims 31-34 cannot be found in either cited reference. Neither Hollier, Malvar, Di Pietro nor Chen teach, disclose, or suggest any of the empirically derived functions, as recited therein.

Claims 30-36 are also allowable by virtue of their dependency on claim 29. For the above stated reasons, the Application respectfully asserts that claims 29-36 are patentable under 35 U.S.C. § 103 (a).

Claim 37:

The Examiner does not provide an independent analysis of claim 37 either. Claim 37 is directed to a method for fabricating a device for evaluating quality in a telephonic voice connection in a telecommunications network. The Examiner does not point out where this method can be found in either Hollier, Malvar, Di Pietro or Chen.

The method includes the step of empirically acquiring user perception data by having at least one test subject listen to a plurality of test messages, and rate the quality of each test message in accordance with at least one user perceived impairment characteristic. The user perception data is modeled as at least one mathematical function. The Examiner does not point out where this step is found in any of the cited references.

The at least one mathematical function is graphically represented by a two dimensional curve having a shape, the shape of the curve being determined by a set of constants employed in the at least one mathematical function. It is the Examiner's duty to point out where each claimed element is found in the cited references. The Examiner does not point out where this step is found in any of the cited references.

The method also includes the step of choosing values for the set of constants to thereby fit the two-dimensional curve to the user perception data to the thereby generate at least one empirically derived mathematical function. The Examiner has not pointed out where this step is found in any of the cited references.

The method also includes the step of converting the at least one empirically derived mathematical function into a set of computer executable instructions. The step includes the limitation that the device is programmed with the set of computer executable instructions. The Examiner has not pointed out where this step is found in any of the cited references.

The claims depending from claim 37 are also patentable in their own right. For example, none of the cited references disclose, teach or suggest using the objective measurements recited in claim 39. None of the cited references disclose, teach or suggest any of the empirically derived equations recited in claims 42-48.

Claims 38-48 are also allowable by virtue of their dependency on claim 37. For the above stated reasons, the Applicant respectfully asserts that claims 37-48 are patentable under 35 U.S.C § 103(a).

Claim 49:

The Examiner also does not provide an independent analysis for claim 49.

Claim 49 is directed to a computer readable medium having computer executable instructions for performing a method. The method includes the step of calculating a solution for at least one empirically derived mathematical function by using at least one measured characteristic as an independent variable of the at least one empirically derived mathematical function. As discussed above in relation to the analysis of claim 1 and claim 18, none of the cited references have this step.

The claims depending from claim 49 are also patentable in their own right. For example, neither reference discloses, teaches, or suggests any of the empirically derived equations recited in claims 51-53

Claims 50-60 are also allowable by virtue of their dependency on claim 49. For the above stated reasons, the Applicant respectfully asserts that claims 49-60 are patentable under 35 U.S.C. § 103(a).

Claim 61:

The Examiner also does not provide an independent analysis for claim 61. Claim 61 is directed to a programmable device for evaluating quality in a telephonic voice connection in a telecommunications network. The Examiner does not point out where in either Hollier or Malvar a programmable device for evaluating quality in a telephonic voice connection is disclosed.

Claim 61 includes a memory operative to store at least one empirically derived mathematical function having at least on independent variable. The Examiner does not point out where in either Hollier, Malvar, Di Pietro or Chen this element can be found.

Claim 61 includes an interface control circuit adapted to receive revised empirically derived data from an external device, and store the revised empirically derived data in the memory. The Examiner does not point out where in either Hollier, Malvar, Di Pietro or Chen this element can be found.

Claim 61 includes a processor programmed to calculate a revised empirically derived mathematical function using the revised empirically derived data. The processor calculate a solution to the revised at least one empirically derived mathematical function by using at least one measured characteristic as the independent variable. The solution is an estimate of likely user perception of the quality of the telephonic voice connection. The Examiner does not point out where in either Hollier, Malvar, Di Pietro or Chen this element can be found either.

For the above stated reasons, the Applicant respectfully asserts that claim 61 is patentable under 35 U.S.C. § 103(a).

B. There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.

The U.S. Court of Appeals for the Federal Circuit has stated that the Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness and in the case of combined references, the Examiner can satisfy this burden "only by showing some objective teaching in the prior art . . . that would lead that individual to combine the relevant teachings of the references." In re Fine, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). On page 3 of the Examiner's Office Action, the Examiner provides a motivational statement that essentially states that it would be obvious to modify Hollier's codec with the one taught by Malvar or Di Pietro or Chen "to utilizes a probability density function that classify signals as taught by Malvar or Di Pietro or Chen so that the codec may classify a signal or set a value such that a desired outcome is achieved." The Examiner fails to point out where the above motivational statement can be found, either in the references themselves, or in the knowledge generally available to those of ordinary skill in the art. There is no objective teaching in the cited prior art that would an individual to combine the cited references in the manner asserted by the Examiner.

The applicant asserts that the examiner's motivational statement is mere hindsight. The U.S. Court of Appeals for the Federal Circuit has emphasized that an Examiner "cannot

use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." Fine, 5 U.S.P.Q.2d at 1600. The Examiner agrees that Hollier does not disclose a processor operative calculate a solution to at least one empirically derived mathematical function by using the at least one measured characteristic as an independent variable. As pointed out above, the other cited references do not have this feature either. In the instant case, the Examiner, now with the claims in mind, has selected and joined isolated parts of four references to assert Applicant's invention would have been obvious "to utilize a probability density function...to achieve a desired outcome."

According to **MPEP 2143.01**, if a proposed modification renders the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 221 USPQ 1125 (Fed. Cir. 1984). In this case Hollier's invention is directed to a method for evaluating the quality of service in a network. Malvar discloses an improved codec that handles degraded speech, as well as clean speech (Column 2, lines 33-45). Malvar's codec is also robust when it comes to packet losses. It is inconceivable that one skilled in the art would use a codec that masks network problems in a device designed to detect network problems. Rather, one skilled in the art would use a codec that provides an accurate condition of the network-under-test. With respect to Di Pietro, the Examiner fails to point out how Di Pietro's neural network would be employed in Hollier's system. Each of these references operate using different principles. Thus, using Di Pietro's neural network in Hollier would necessarily change the way Hollier operates. Finally, Chen's invention is for detecting zero rate frames in a CDMA system. The Examiner fails to explain why a zero rate frame detector is applicable to Hollier's method for evaluating the quality of service in a network.

In light of the above analysis, there is no motivation or suggestion in these references to make the Examiner's proposed combination. The Applicant respectfully asserts that claims 1- 61 are patentable under 35 U.S.C. § 103(a).

C. The Examiner failed to answer the Applicant's previous arguments.

In the Examiner's last Office Action, the Examiner states that the Applicant's arguments "were moot" in light of the new rejection. The applicants disagree because, in fact, the Examiner's rejection was maintained. The only difference is that Di Pietro and Chen were used in the alternative to Malvar. Thus, all of the applicant's arguments with respect to

Hollier and Malvar are still relevant and applicable. The Examiner has a duty to respond to the applicant's arguments.

2. Conclusion

Based upon the remarks and papers of record, Applicant believes the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicant respectfully requests reconsideration of the pending claims 1-61 and a prompt Notice of Allowance thereon.

Applicant believes that no extension of time is necessary to make this Response timely. Should Applicant be in error, Applicant respectfully requests that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Response timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of WorldCom, Deposit Account **13-2491**.

Please direct any questions or comments to Daniel P. Malley at (607) 256-7307.

Respectfully submitted,

WALL MARJMA & BILINSKI

Date: January 21, 2003

Daniel P. Malley

Daniel P. Malley
Registration No. 43,443
WALL MARJMA & BILINSKI
101 S. Salina Street
Suite 400
Syracuse, NY 13202

I hereby certify that this correspondence is being deposited with the United States Postal Services as Express Mail Label No. EV183732729US addressed to Assistant Commissioner for Patents, Washington D.C. 20231, on January 21, 2003.

Lynn L. Pond

Lynn L. Pond